

110/2024

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. Offset printing is also termed as :
 - (A) Lithographic printing process
 - (B) Direct lithographic printing process
 - (C) Indirect lithographic printing process
 - (D) Zinc rotary
2. Printing on both side of paper in single pass on a Printing press referred as :
 - (A) Duplex printing
 - (B) Personalizing
 - (C) Perfecting
 - (D) None of these
3. Which of the following is **Not** true for a Three cylinder Offset system?
 - (A) The bearers of Blanket and Plate cylinders are in Direct Contact
 - (B) Distance between Plate and Blanket cylinder cannot be adjusted by Operator
 - (C) Printing pressure between Plate and Blanket is determined by the Cylinder packing
 - (D) None of these
4. First Web Offset printing press was invented by :
 - (A) Ira W. Rubel
 - (B) Casper Hermann
 - (C) Alfred
 - (D) Charles Harris
5. In which of these printing press design, printing forme/Type bed/Image carrier is held vertically?
 - (A) Flat Bed Cylinder
 - (B) Platen
 - (C) Rotary
 - (D) All of these
6. In a Flexographic printing unit, the screen frequency of the Anilox roller should be :
 - (A) Greater than plate screen by a factor of at least 5.5
 - (B) Greater than plate screen by a factor of at least 2.5
 - (C) Lesser than plate screen by a factor of at least 5.5
 - (D) Lesser than plate screen by a factor of at least 2.5
7. Which type of flexographic plate has a 'Black layer' present in its structure?
 - (A) Single layer plate
 - (B) Multi-layer plate
 - (C) Plate for CTP imaging system
 - (D) All of these

8. Which type of Flexographic press type is used for printing Corrugated board?
 (A) Stack press (B) CI press
 (C) Inline press (D) All of these
9. Which of these Gravure cylinder imaging method is called Halftone Gravure?
 (A) Chemical etching (B) Mechanical engraving
 (C) Direct laser engraving (D) None of these
10. The term 'Kiss printing' is introduced in _____ printing process.
 (A) Offset printing (B) Flexographic printing
 (C) Gravure printing (D) Screen printing
11. Which conventional Printing process can print grey levels without using the Halftone principle?
 (A) Offset printing (B) Flexographic printing
 (C) Gravure printing (D) Screen printing
12. The liquid light sensitive emulsion required in Direct Photographic stencil process falls into _____ Chemical formulation.
 (A) Synthetic based material
 (B) Gelatin based material
 (C) A combination of both synthetic and Gelatin material
 (D) All of the above
13. Which type of Squeegee blade is good for working with Glass?
 (A) Square edge with Round corner (B) Double bevel
 (C) Single bevel (D) Round edge
14. Organdy is an example for :
 (A) Screen fabric (B) Emulsion
 (C) Stencil (D) None of these
15. The printing stage of Electro photography is called :
 (A) Toner fixing (B) Inking
 (C) Toner transfer (D) Imaging
16. Which NIP Technology is also known as Electron beam printing?
 (A) Electrophotography (B) Magnetography
 (C) Ionography (D) Thermography
17. Which of these technology uses a layer of Co-Ni-P for image preparation?
 (A) Electrophotography (B) Magnetography
 (C) Ionography (D) Thermography

18. Electrostatic Inkjet is a variant of _____ process.
- (A) Drop on demand (B) Multi deflection
(C) Piezo Inkjet (D) Thermal Inkjet
19. In which of these Thermography process, various grey values are possible per dot of the same size?
- (A) Direct Thermography (B) Thermal sublimation
(C) Thermal transfer (D) All of these
20. According to OSHA guidelines, what is the maximum Permissible Exposure Limit (PEL) for Isopropyl Alcohol (IPA) in parts per million (ppm) over an eight-hour period?
- (A) 2000 ppm (B) 1000 ppm
(C) 4000 ppm (D) 5000 ppm
21. What is the defect called when the surface of the blanket does not transfer ink satisfactorily on the substrate and the surface looks hard, glazed and shiny?
- (A) Ink smearing (B) Blanket blinding
(C) Glazed blanket (D) Ink ghosting
22. What is the term for a printing problem where some subjects on a press sheet register correctly while others do not, or if the misregister varies from sheet to sheet?
- (A) Consistent Misregister (B) Random Misregister
(C) Color Misalignment (D) Image Skewing
23. What type of dampening solution is required for fluorescent ink in printing?
- (A) Neutral dampening solution (B) Acidic dampening solution
(C) Alkaline dampening solution (D) None of these
24. What is the proper term for the phenomenon where ink pigment particles bleed into the dampening solution in hot weather, increasing as the temperature rises?
- (A) Scumming (B) Ghosting
(C) Tinting (D) Mottling
25. What is the term for the permanent reduction in thickness of any blanket's component parts in printing?
- (A) Compression Set (B) Stretching
(C) Shrinkage (D) Delamination
26. In the context of printing and material handling, what is a "lug air shaft"?
- (A) A type of air vent used to control temperature in printing presses
(B) A shaft with expandable lugs used to grip the core of a roll of material
(C) A device used to remove moisture from paper during printing
(D) A component used to align printing plates

27. In the context of web offset printing, what is a “butt switch” used for?
- (A) To adjust the tension of the web material
 - (B) To detect the end of a roll and trigger a splice
 - (C) To control the ink flow to the printing plates
 - (D) To align the web material with the printing plates
28. What feature allows an inertially compensated dancer roller to operate at a constant effective weight during acceleration and deceleration?
- (A) A hydraulic system
 - (B) A flywheel at each end
 - (C) Adjustable tension springs
 - (D) Electronic sensors
29. Which statement best describes the purpose of the silicone application unit in commercial web offset presses?
- (A) It is used to mix inks for better color accuracy
 - (B) It is installed to clean the printing plates automatically
 - (C) It is placed in front of longitudinal slitting devices and turner bars to avoid ink set-off and possible smudging on the deviation elements
 - (D) It increases the speed of the printing process without changing the content
30. What improvement is seen in more recent variants of buzzle wheels?
- (A) They mix inks for better color accuracy
 - (B) They clean the printing plates automatically
 - (C) They are driven at a lower speed to eliminate harmful effects such as ink set-off and smearing
 - (D) They increase the speed of the printing process without changing the content
31. What is a distinguishing feature of the drum folder, also known as a “rotating folder”?
- (A) It operates using a standard cam-controlled mechanism
 - (B) It lacks a cutting knife cylinder
 - (C) It operates on the same principle as other types of folders
 - (D) It uses a folding cylinder and a folding/tucker blade, with the operation managed by a special planetary gear due to the long travel distance of the tucker blade
32. For printing heavy solid jobs, which range of shore hardness should the blankets have?
- (A) 40° to 50°
 - (B) 50° to 60°
 - (C) 60° to 70°
 - (D) 70° to 80°
33. What modification does the Super blue system by Printing Research Inc. use to reduce or eliminate the tendency to mark printed sheets?
- (A) Replacing the solid delivery cylinder with skeleton wheels
 - (B) Using a solid delivery cylinder coated with an ink-absorbent material
 - (C) Replacing the skeleton wheels with a solid delivery cylinder coated with a frictionless, ink repellent material and covered with loose fitting ink repellent cloth netting
 - (D) Adding an additional drying mechanism to the printing process

34. Which statement best describes the Davis Process Roller?
- (A) A roller used in digital printing to enhance color accuracy
 - (B) A specific type of roller used in offset printing to improve ink distribution and maintain a consistent ink film thickness on the printing plate
 - (C) A roller used in screen printing to apply a thick layer of ink
 - (D) A roller designed for flexographic printing to transfer images onto flexible substrates
35. Which statement best describes the composition of a synthetic rubber roller in printing?
- (A) Neopron is used to harden the roller and nitrile rubber is used to make the upper layer soft
 - (B) Neopron is mixed in synthetic rubber to bring softness, and nitrile rubber is used to make the upper layer hard
 - (C) Both Neopron and nitrile rubber are used to bring softness to the roller
 - (D) Neopron is mixed in synthetic rubber to make the upper layer hard and nitrile rubber is used for the core
36. A spur gear used as a plate cylinder gear nearly always has a backlash gear. What is the primary function of this backlash gear?
- (A) To increase the speed of the gear system
 - (B) To reduce play between gears
 - (C) To change the direction of gear rotation
 - (D) To add extra weight for stability
37. What role do fountain cheeks play in a printing system?
- (A) They regulate the flow of ink to the printing plate
 - (B) They adjust the speed of the fountain roller
 - (C) They contact the fountain roller edges and the fountain blade edges to form an ink-tight trough
 - (D) They clean the fountain roller and blade edges
38. ITS stands for :
- (A) International Typographical Society
 - (B) International Typographic Style
 - (C) International Technical Scheme
 - (D) International Typographic System
39. Which one of the following is the building block of design?
- (i) Point
 - (ii) Line
 - (iii) Plane
 - (iv) All of the above
- (A) (i) only
 - (B) Both (ii) and (iii)
 - (C) (iv)
 - (D) (iii) and (i)

40. From the following font types find out which one is an example Garalde font :
- (A) Janson (B) Centaur
(C) Verona (D) Lynton
41. _____ refers to the contrast between intense colors and tertiary or muted colors.
- (A) Contrast of hue (B) Simultaneous contrast
(C) Contrast of Saturation (D) Light-dark contrast
42. Which is a design technique that uses the mind's tendency to complete incomplete shapes?
- (A) Movement (B) Closure
(C) Continuation (D) Similarity
43. Applying an order of importance to a set of elements in a design is called :
- (A) Rhythm (B) Proximity
(C) Hierarchy (D) Movement
44. The temperature usually expressed in Kelvins of a blackbody radiator that most closely resembles the color of a stimulus of equal brightness is called :
- (A) Color temperature (B) Blackbody temperature
(C) Color rendering (D) Correlated color temperature
45. Changes in the visual system that approximately compensate for changes in the level of illumination is called :
- (A) Color adaptation (B) Chromatic adaptation
(C) Light adaptation (D) Color constancy
46. Who proposed natural color system?
- (A) Johansson (B) Hesselgren
(C) Thomas (D) Munsell
47. Which one of the following statement are right?
- (i) Munsell color system is an example for systems based on color perception
(ii) Natural color system is an example for systems based on color perception
(iii) The CIE system is an example for systems based on color matching
(iv) HSL system is an example for systems based on color mixing
- (A) (i), (ii) and (iii) (B) (i) and (iii) only
(C) (ii), (iii) and (iv) (D) (i), (ii), (iii), (iv)
48. Which one of the following is an example for achromatic property of color?
- (A) Blackness (B) Whiteness
(C) Lightness (D) All of the above

49. Match the following :

- | A | B |
|-------------------------|--|
| (i) Colorimeter | (1) Measuring tristimulus values for a stimulus |
| (ii) Spectrometer | (2) Measuring spectral radiance |
| (iii) Spectroradiometer | (3) Measure spectral reflectance |
| (iv) Spectrophotometer | (4) Measure specified optical property as function of wavelength |
- (A) (i)-(1), (ii)-(3), (iii)-(2), (iv)-(4)
(B) (i)-(1), (ii)-(4), (iii)-(2), (iv)-(3)
(C) (i)-(4), (ii)-(3), (iii)-(2), (iv)-(1)
(D) (i)-(4), (ii)-(3), (iii)-(1), (iv)-(2)

50. Example for pre press automation software :

- | | |
|---------------------|--------------------------|
| (A) Enfocuss switch | (B) Enfocuss Pitstop pro |
| (C) Acrobat Suite | (D) None of these |

51. _____ is a digital file format used to create and distribute eBooks, also supports embedding videos, audios and multimedia element.

- | | |
|------------|------------|
| (A) SVG | (B) e PUB |
| (C) e PUB3 | (D) 3 PUB2 |

52. MIS stands for :

- | | |
|-----------------------------------|-------------------------------------|
| (A) Machine Information System | (B) Machine Integrated System |
| (C) Management Information System | (D) Management Information Software |

53. Physical proofs printed on the actual press substrate for final color and layout verification are called :

- | | |
|------------------|--------------------|
| (A) Soft proof | (B) Ok Sheet |
| (C) Press proofs | (D) Contract proof |

54. Point system was developed by :

- | | |
|----------------------|-----------------------------|
| (A) Benjamin point | (B) Francois Ambroise Didot |
| (C) Thomas Frederick | (D) Alfred Cicero |

55. _____ deals with the relationship between exposure and the blackening of photographic materials it produces.

- | | |
|-----------------|------------------|
| (A) Seismometry | (B) Sensitometry |
| (C) Photometry | (D) Optics |

56. The statistical distribution of grain clusters in an evenly exposed area of the developed film is called :

- | | |
|----------------|---------------------|
| (A) Resolution | (B) Density patches |
| (C) Graininess | (D) None |

57. The term Auto type was coined by :
- (A) Meisenbach (B) Gilbert Magen
(C) Kleing Faseinbender (D) George droig
58. Type of films processed without the need for a wet chemical developing stage and are therefore also described as “dry films” is :
- (A) Chloride films (B) Diozide films
(C) Halide films (D) Ablation film
59. CIP4 stands for :
- (A) Clean-In-Place
(B) International Cooperation for Integration of prepress, press and post press
(C) International Cooperation for process integration of paper, plate and processes
(D) International Cooperation for process integration of prepress, press and post press
60. The first electronic computer was :
- (A) UNIVAC-1 (B) EDSAC
(C) ENIAC (D) PARAM-10,000
61. Pick the odd one out :
- (A) Micro computer (B) Laptop
(C) Mini computer (D) Super computer
62. Shortcut key Ctrl+V used for :
- (A) Paste the selected document (B) Underline highlighted text
(C) Cut selected item (D) Go to the beginning of the document
63. Windows data compression tool used for file transfer, faster e-mail transmission and well organised data storage is known as :
- (A) ZIP (B) PDF
(C) JPEG (D) Win RAR
64. What type of device is a digital camera?
- (A) Input (B) Output
(C) Storage (D) Backup
65. Coloured dots are phased at different angles to avoid screen clash or moires is called :
- (A) FM screening (B) AM screening
(C) Encoding (D) Carrier frequency
66. Graphic images that contain ————— are called raster images.
- (A) Illustrations (B) Straight line and curved lines
(C) Continuous tone (D) Pixels

67. Photoshop is an example of _____ image editing softwares.
 (A) Vector (B) Raster
 (C) Bezier (D) Flexible
68. Which type of scanner is used to dragged across the surface of the image to be scanned by hand?
 (A) Drum scanner (B) Flat bed scanner
 (C) Handheld scanner (D) Film scanner
69. System date is stored using which memory?
 (A) RAM (B) Secondary memory
 (C) CMOS memory (D) ROM
70. What is CMOS?
 (A) Complementary Metal Oxide Semi Conductors
 (B) Ciyan Magenta Optical Screening
 (C) Changed Mono Oxide Sensor
 (D) Computer Machine Operating System
71. Which of the following is not an image editing software?
 (A) Freehand (B) Flash
 (C) Corel Draw (D) Firewall
72. Select non repro lines from the following?
 (A) Paper line (B) Centre line
 (C) Fold line (D) Trim line
73. _____ is a method used to create a small area of overlap between colours to compensate for potential gap.
 (A) Pre flighting (B) Trapping
 (C) Colour gamut (D) Output to film
74. The adjustment of space between characters is called :
 (A) Leading (B) Formating
 (C) Tracking (D) Kerning
75. The most common base metal for CTP plates is :
 (A) Photo polymer (B) Nickel
 (C) Chromium (D) Aluminium
76. _____ is a facility to correct misspelled words and misplaced symbols automatically.
 (A) Thesaurus (B) Auto correct
 (C) Mail merge (D) Proofing

77. Logs are cut to uniform length debarked and sent to a grinder is called :
- (A) Pulping (B) Treating
(C) Chipping (D) Rolling
78. Paper with fibers that are aligned parallel to the sheets shorter dimension is called :
- (A) Short grain (B) Grain direction
(C) Fiber strength (D) Dimensional stability
79. The basic size of all business papers is :
- (A) 17.5" × 22.5" (B) 13.5" × 17"
(C) 23" × 28" (D) 17" × 22"
80. Which of the following does not belong the group?
- (A) Tsai Lun (B) Ulmann Stromer
(C) Fourdrinier (D) Sultan Zainul Abedin
81. 500 sheets of paper of same size and weight is termed as :
- (A) Basis weight (B) Ream
(C) International paper sizes (D) GSM
82. Which cutting device is best suited for intricate shapes and designs in paper cutting within the offset printing industry?
- (A) Electric trimmer (B) Guillotine cutter
(C) Rotary cutter (D) Die cutter
83. What is the purpose of the “gathering” machine in the binding process?
- (A) To cut sheets into signatures (B) To print text on pages
(C) To align and stack signatures (D) To apply adhesive to the spine
84. By volume, which is the largest component of ink?
- (A) Vehicle (B) Pigment
(C) Reducer (D) Dryer
85. What type of adhesive is commonly used in the perfect binding process?
- (A) Solvent-based adhesive (B) Water-based adhesive
(C) Epoxy adhesive (D) Hot-melt adhesive
86. What problem can worn or improperly positioned sheet deflectors cause?
- (A) Sheet separation (B) Perforations
(C) Proper alignment (D) Dog-ears

87. How does the Pantone system differ from the CMYK color model?
- (A) Pantone colors are pre-mixed inks, while CMYK colors are mixed during the printing process
 - (B) Pantone uses a four-color process, while CMYK uses spot colors
 - (C) Pantone uses RGB values for color matching
 - (D) Pantone is only used for digital displays, while CMYK is for printing
88. In the context of sheeter operations, what does precision sheeting aim to eliminate?
- (A) The need for adjusting the speed of the rotating knife
 - (B) The need for multiple roll sheeting
 - (C) The need for a layboy
 - (D) The need for additional trimming of sheeted paper
89. Which finishing operation is most commonly used to enhance the durability and appearance of printed material?
- (A) Laminating
 - (B) Diecutting
 - (C) Thread sewing
 - (D) Embossing
90. What is the visual effect achieved by using spot varnish on a matte book cover?
- (A) A glossy effect only on specific areas, contrasting with the matte texture
 - (B) A consistent glossy finish over the entire cover
 - (C) A reduction in the overall shine of the cover
 - (D) A blurred appearance on the printed text
91. What can be the maximum content percentage of tack reducer in offset printing ink modifiers depending on the process?
- (A) 4%
 - (B) Up to 5%
 - (C) Between 2% and 3%
 - (D) Up to 1%
92. What temperature range should be maintained for the dampening solution to ensure stable printing conditions?
- (A) 5 to 9 degrees Celsius
 - (B) 10 to 14 degrees Celsius
 - (C) 20 to 24 degrees Celsius
 - (D) 15 to 19 degrees Celsius
93. What does “folded-to-print” mean in the context of book signatures?
- (A) Olds are made for sheets printed on only one side
 - (B) Folds are made to ensure the alignment of page elements and backup printing
 - (C) Folds are made without attention to alignment
 - (D) Folds are made in the same direction as previous folds
94. What is a common issue with in-line finishing systems?
- (A) Higher production speed
 - (B) Increased downtime due to equipment failure
 - (C) Increased material waste
 - (D) Reduced setup time

95. What is the primary difference between a single rotary cutter and a double rotary cutter in a sheeter?
- (A) A single rotary cutter has one rotating knife and one stationary knife, while a double rotary cutter has two rotating knives
 - (B) A single rotary cutter has two rotating knives, while a double rotary cutter has one stationary and one rotating knife
 - (C) A single rotary cutter adjusts the speed of the paper web, while a double rotary cutter does not
 - (D) A single rotary cutter is used for precision sheeting, while a double rotary cutter is used for trimming
96. Some of easily biodegradable oil extracts from Soybean, Rice bran, Cottonseed, Castor, Linseed are used in ink as what?
- (A) Pigments
 - (B) Vehicles
 - (C) Emulsifiers
 - (D) Modifiers
97. Which type of folder is primarily used for right-angle folds?
- (A) Parallel folder
 - (B) Buckle folder
 - (C) Knife folder
 - (D) Combination folder
98. What happens to the surface tension and viscosity of the dampening solution when less alcohol is used?
- (A) Higher surface tension and higher viscosity
 - (B) Lower surface tension and higher viscosity
 - (C) Higher surface tension and lower viscosity
 - (D) Lower surface tension and lower viscosity
99. What is the primary purpose of a fold plate in a buckle folder?
- (A) To cut the paper
 - (B) To create a buckle in the sheet
 - (C) To hold the paper steady
 - (D) To apply adhesive
100. Why is it important to control the amount of driers like cobalt and manganese in offset printing ink?
- (A) To lessen production costs
 - (B) To augment gloss
 - (C) To prevent issues with offset print trapping amongst colors
 - (D) To expand rub resistance
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SPACE FOR ROUGH WORK

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